

REMARKS

Status of claims and support for claim changes:

Claims 9, 30 and 31 are canceled. Claims 37-40 are added.

Claims 1-8, 10-29 and 32-38 are pending for further examination.

The preambles to claims 1, 8, 15, 20 and 36 have been clarified to recite a “first device for handling money that facilitates communications between an external controller and a further device for handling money.” *See, e.g.*, FIG. 1 of U.S. Patent No. 6,390,269. The preamble thus provides antecedent basis for the recitation of the external controller and the further device for handling money in the body of the claims. Accordingly, references to the “external controller” and the “further device for handling money” in the body of the claims are introduced by the definite article “the” rather than the indefinite article “a.”

The phrase “*first* device” is provided simply to facilitate distinguishing between references in the claims to that device and references to the “further device.” The word “*first*” in the phrase “*first* device” is not meant to imply or require any particular order.

Claims 1, 8, 15, 20 and 36 have been amended to clarify that the first port is for removable connection to the external controller so as to couple the external controller to the internal controller for communication with the internal controller. The first port, which is part of the claimed “first device for handling money,” can be connected to the external controller to allow communication between the internal and external controllers. *See, e.g.*, U.S. Patent No. 6,390,269 at col. 2, lines 42-44.

Claims 7, 14, 19 and 21 have been amended to clarify that the first and second ports are ports of the money handling device. *See, e.g.*, U.S. Patent No. 6,390,269 at col. 2, lines 42-43 and 53.

Claims 37 and 38 have been added and recite that communications over the second port use a different version of a communications protocol supported by the first port. Claims 39 and 40 have been added and recite that communications over the second port use a different protocol

from the protocol supported by the first port. *See, e.g.*, U.S. Patent No. 6,390,269 at col. 5, lines 51-66 and col. 6, lines 6-21.

Summary of claim rejections under 35 U.S.C. § 103

Claims 30-31 have been canceled. Therefore, the rejections of those claims are moot.

The other claims were rejected as follows:

- (1) Claims 1, 3, 4, 6-8, 12-14, 20-23, 33, 35 and 36 were rejected under 35 U.S.C. §103 as unpatentable over U.S. Patent No. 4,611,205 (Eglise) in view of U.S. Patent No. 5,464,087 (Bounds).
- (2) Claims 2, 10, 11, 15-19, 28, 32 and 34 were rejected 35 U.S.C. §103 as unpatentable over the Eglise patent in view of the Bounds patent and further in view of U.S. Patent No. 5,442,568 (Ostendorf et al.).
- (3) Claim 5 was rejected 35 U.S.C. §103 as unpatentable over the Eglise patent in view of the Bounds patent and further in view of U.S. Patent No. 6,119,053 (Taylor et al.).

In view of the following remarks, applicant respectfully requests reconsideration and withdrawal of the rejections, and allowance of the claims.

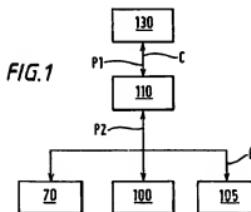
The claims are patentable over the cited references

Claims 1, 8, 15, 20 and 36

To facilitate understanding of the claimed subject matter, applicant reproduces the following remarks made in a prior response and also reproduces FIG. 1 of the pending application.

According to claim 1, for example, a device for handling money includes a money handling apparatus (*e.g.*, changer 110 in FIG. 1) with an internal controller (*e.g.*, microcontroller 400 in FIG. 2) for controlling the money handling apparatus. The device has a first port (*e.g.*,

port P1) for removable connection to an external controller (e.g., vending machine controller 130) for communication with the internal controller. The internal controller is arranged to communicate over a second port (e.g., port P2) with a further device (e.g., device 70, 100 or 105) using a communications protocol. The protocol supports communication between the internal controller and any one of at least first and second different types of device for handling money. The first type of device handles money of a different type from those handled by the second type. In the example of FIGs. 1 and 2, the protocol allows the microcontroller 400 to communicate with coin change dispenser 105, bill validator 100 or card reader 70, which handle types of money different from one another.

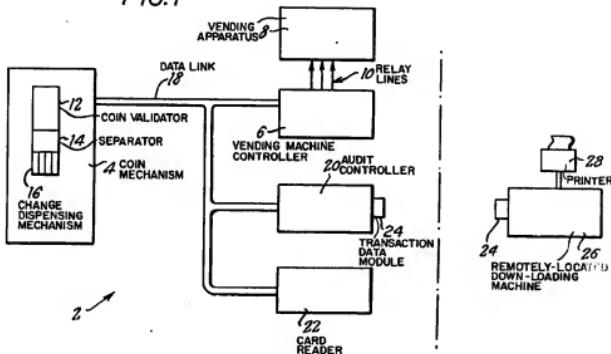


An aspect of the invention relates to the provision of the additional port (e.g., port P2 in FIG. 1) on a money handling device (e.g., changer 110) to allow piggy-back connection of a device using a protocol that is not fully supported over the main port (e.g., port P1), which connects the money handling device to an external controller. The protocols used for communications over the first and second ports may be entirely different protocols or they may be different versions of the same protocol (see, e.g., U.S. Patent No. 6,390,269, col. 5, lines 51-66 and col. 6, lines 6-21). Thus, the protocol used for communications over the second port may be only partially supported over the first port or may not be supported at all.

Claim 1 recites that the communications protocol, which is used by the internal controller to communicate over the second port (e.g., port P2) with the further device, is not fully supported over the first port (e.g., port P1). Claim 1 also recites that the device for handling money is arranged such that communications between the external controller and the further device for handling money are relayed by the internal controller. In some implementations, relaying the communications includes echoing signals and/or converting signals.

The Eglise patent discloses a data collection system, which can be used, for example, as a vending machine audit system. The Office action alleges that the audit controller 20 (see FIG. 1 reproduced below) corresponds to the claimed “internal controller for controlling the money handling apparatus.” As explained below, that is incorrect.

FIG. 1



claimed “money handling apparatus” and that the audit controller 20 corresponds to the claimed “internal controller for controlling the money handling apparatus.” However, contrary to the implications of the Office action, the audit controller 20 of the Eglise patent does not control the coin mechanism 4. Instead, the coin mechanism 4 has its own central processor 202 (see col. 9,

lines 15-16; *see also* col. 6, lines 23-25 and col. 8, lines 18-19). Therefore, the audit controller 20 does not correspond to the claimed “internal controller *for controlling the money handling apparatus.*”

The Office action further alleges that the transaction data module 24 in the Eglise patent corresponds to the claimed “first port” and the remotely-located down-loading machine 26 in the Eglise patent corresponds to the claimed “external controller.” That too is incorrect.

First, although the data module 24 can be connected to a connector on the audit controller 20 (*see* col. 6, lines 67-68), the data module 24 itself is not a “port” as recited in the pending claims. Second, the audit controller 20 and the remotely-located down-loading machine 26 are never coupled to one another to allow them to communicate with each other. Instead, the audit controller 20 transfers audit data to the data module 24. The audit module 24 then is removed from the controller 20 and is connected to the remotely-located down-loading machine 26 so that the audit data can be transferred to the machine for storage and printing. Thus, the data module 24 is carried to the machine 26, after being removed from the audit controller 20, to facilitate the transfer of the audit data to the remote machine 26. At no time is the *remote* machine 26 connected to a port of the audit controller 20. Therefore, the Eglise patent does not disclose “a first port for removable connection to the external controller *so as to couple the external controller to the internal controller for communication with the internal controller,*” as recited in pending claim 1.

In view of the foregoing remarks, even if the disclosure of the Bounds et al. patent were somehow combined with the disclosure of the Eglise patent, that would not have rendered the subject matter of claim 1 (or its dependent claims) obvious.

Each of claims 8, 15, 20 and 36, like claim 1, recites a device for handling money that includes an internal controller for controlling a money handling apparatus, and a first port for removable connection to the external controller so as to couple the external controller to the internal controller for communication with the internal controller. Therefore, claims 8, 15, 20

and 36, as well as their dependent claims, should be patentable at least for the reasons discussed above with respect to claim 1.

Claims 7, 14, 19 and 21

Claim 7 recites a method of communication for a money handling apparatus. The method includes communicating with an external controller over a first port of the money handling device, and communicating with a further money handling apparatus over a second port of the money handling device by means of a communications protocol supporting communication with any one of at least first and second different types of device for handling money. The first type of device handles money of a different type from that handled by the second type. The communications protocol for communication with the first and second types of money handling devices is not fully supported over the first port for communication with the external controller.

The Office action does not explain in any detail how the Eglise patent (or the other references) allegedly disclose or render obvious the subject matter of claim 7. Applicant notes, however, that according to the Eglise patent:

Information is transmitted on the data link 18 in the form of eight-bit bytes, each of which is transmitted with a start bit, a stop bit and a parity bit. Information is transmitted always between the coin mechanism 4 and one of the peripherals 6, 20 and 22.

(Col. 8, lines 20-24) Therefore, even assuming that the coin mechanism 4 corresponds to the claimed "money handling device," there is no indication that different protocols are used for communications between the coin mechanism 4 and the various peripherals. Furthermore, all communications to and from the coin mechanism 4 are over the same data link 18. The coin mechanism 4 does not have separate ports for communicating with the various peripherals 6, 20 and 22.

Likewise, the Bounds patent explains that the same message format is used for data communication between all the components. *See, e.g.*, col. 6, line 66 – col. 7, line 21. In each

component, the communication software is operable to receive messages in the common format. Col. 10, lines 5-6. Furthermore, each component follows the same technique for transmitting and receiving data (see FIGS. 4A and 4B, and the associated description). There is no indication that different protocols are used for communications between the different components.

The Office action has not explained how the disclosures of the cited references allegedly render obvious the claimed subject matter. Accordingly, applicant submits that a *prima facie* case of obviousness has not been established.

Each of claims 14, 19 and 21 recites a method of communication for a money handling apparatus/device. Each method includes communicating with an external controller over a first port of the money handling apparatus/device, and communicating with a further money handling apparatus/device over a second port of the money handling apparatus/device according to a communications protocol not fully supported by the first port. Claims 14, 19 and 21, as well as their dependent claims, should be patentable over the cited references at least for the reasons discussed above with respect to claim 7.

Claims 22-23

Applicant submits that the Office action has not established a *prima facie* case of obviousness with respect to claims 22-23. For example, the Office action fails to identify a *plurality* of ports each arranged for removable connection to an external controller. The Office action also fails to explain how the references, taken alone or in combination, disclose detecting to which of the ports the external controller is connected and communicating with the external controller using a communications protocol selected according to the detected one of the ports.

Accordingly, applicant submits that claims 22 and 23, as well as their dependent claims, should be patentable.

Claims 37-40

New claims 37 and 38 recite that communications over the second port use a different version of a communications protocol supported by the first port. New claims 39 and 40 recite

that communications over the second port use a communications protocol different from the communications protocol supported by the first port. The cited references do not disclose these features and do not render obvious the subject matter as a whole of any of claims 37-40.

Conclusion

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

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Respectfully submitted,

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